

irregular whitish scales, among which, in certain places, some six or seven larger ones are seen forming a rosette. Between the rays and their bifurcations this scaly covering of the ventral surface extends back on to the dorsal surface, ending there with great regularity in triangular spaces pointing to the centre of the disk. The remainder of the dorsal surface of the disk and the rays, which, by this arrangement, assumes the form of a regular star with five broad dichotomous rays, is clothed with a soft and smooth brownish skin. There is no trace of a calyx. In the centre of the even dorsal face of the disk is seen a somewhat pentagonal space studded with minute pores.

To have the channels on the disk converted into tunnel-like passages leading to a mouth concealed beneath the integument is a peculiarity hitherto not observed in any recent Crinoid; but it is, as shown by Professor Huxley and Mr. Billings, a characteristic of the palæozoic Crinoids and Cystideans. The absence of any indication of a calyx at once excludes *Hyponome* from the former. Among the Cystideans it recalls the genus *Agelacrinites*, of Vanuxem, by the depressed form of the body, the scaly covering, and the flatness of the dorsal surface, devoid of anything like a stem or peduncle, as also by the absence of pectinated rhombs and of pinnulæ. Branchlets running from the channels to sacculate protuberances are found also in the genus *Glyptocystites* of Billings and *Glyptospherites* of Johannes Müller; and bifurcations of the channels are met with in *Sphærocystites* and *Callocystites* of Hall. Lastly, the genus *Hyponome* shares with the surviving type of the Crinoidea the radiated form of the body and the simply conical unprotected funnel.

The specimen described is from Cape York, Torres Strait.

XVIII.—*Descriptions of a remarkable new Jellyfish and two Actinians from the coast of Maine.* By A. E. VERRILL\*.

DURING an excursion to the coast of Maine and Bay of Fundy last season, many interesting and rare marine animals were observed and collected by myself and companions †. Among the most remarkable new species is a very large and beautiful Discophorous jellyfish, which is the type of a new genus, and represents a family previously unknown upon our Atlantic coast.

In size and general appearance it has some resemblance to *Cyanea arctica*, for which it may, possibly, have been hitherto mistaken by casual observers; for it seems scarcely probable

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that such a large and conspicuous species, which occurred twice among the wharves at Eastport, could otherwise have so long escaped observation. Its colour, however, is much lighter than that of *Cyanea*, and yellowish rather than brown or reddish, while the much less numerous tentacles are larger, flattened, with one edge crenulated and bordered with white; and its entire structure is quite different.

It is far more nearly allied to *Hexadecomma ambiguum*, Brandt, of the North Pacific; but the latter is represented with round tentacles, different marginal lobes and ovaries, and broader and much more complicated mouth-folds.

CALLINEMA, Verrill, gen. nov.\*

Disk broad, moderately thick, with numerous broad channels running to the marginal one, arranged in sixteen systems, two or three parallel and undivided tubes alternating with a group of five or six branching ones, which unite together into one toward the central portion of the disk, each of which corresponds in position with one of the sixteen eye-bearing marginal lobes. Toward the marginal channel the branching tubes anastomose freely, the undivided ones but slightly or not at all, though two often unite into one near the margin. Margin deeply and regularly divided into scolloped lobes, sixteen of which bear eyes and are bilobed for more than half their length, bearing the eye at the division, just below which the channel in the lobe divides into two divergent branches, one of which goes to each division. Alternating with the eye-lobes are somewhat longer lobes, which are divided at the edge into two, three, or four rounded scollops, each of which receives a simple channel. Tentacles in a nearly regular circle, but arranged in groups of five or six at the bases of the interocular lobes, very long, highly contractile, flat; one edge double, finely scolloped, the scollops again finely crenulate. Ovaries large much convoluted pendent pouches. Lobes of the actinostome four, large, elongated, pointed, complexly lobed and frilled.

*Callinema ornata*, Verrill, sp. nov.

Disk large, up to 18 inches in diameter, with conspicuous radiating tubes .1 to .3 inch broad. Actinal appendages, when extended, about as long as the diameter of the disk, broad, much convoluted, and deeply frilled at base, the edges with fine papilliform divisions. Ovaries large, hanging loosely from the underside of the disk, and nearly equal in length to the radius of the disk. Tentacles .2 inch broad, extending to

\* κάλλος, beauty, νῆμα, thread.

the length of at least 15 feet in large specimens, capable of contracting to a length of less than six inches, about 80 or 90 in number, arranged in a nearly regular circle, one to each of the marginal scollops, except those of the eye-bearing lobes; double edge neatly scolloped, frilled and minutely crenulated.

Disk transparent, the radiating tubes light brownish yellow, the central area marked interiorly with lines of light orange, enclosing large, irregularly polygonal areas, below which the lobes of the actinostome show through, giving a yellow centre about three inches in diameter; outside of this the ovarian lobes, which are light brownish yellow, show through the disk and extend at times nearly to its margin. They are grouped somewhat into four divisions, and float about variously as the animal moves. Eyes pearl-white. Tentacles transparent, the complex edge flake-white. Actinal folds lemon-yellow or light buff. Lobes of the reproductive organs either yellowish white or brownish yellow, with darker borders of yellowish brown or orange-brown. Phosphorescent with white light. Diameter of largest specimen 18 inches; length of tentacles 15 feet or more, in extension. Another specimen was 10 inches in diameter; disk at centre 1.5 inch thick; largest marginal lobes 1.25 long, smallest .75; actinal appendages 8-10 inches long; ovaries hang down 4 inches from disk; tentacles 12 feet long.

Eastport Harbour, swimming near the surface at noon; three specimens observed, one preserved in the museum of Yale College.

*Edwardsia elegans*, Verrill, sp. nov.

Body elongated, slender; epidermis thick, light yellowish brown, with entangled mud, the upper edge slightly free and prominent. Tentacles 16, slender, variously curved and entwined, pale flesh-colour, with a central longitudinal line of light orange-red; naked part below the disk pale pink, with longitudinal white lines corresponding with the internal lamellæ; mouth light yellowish; disk pale flesh-colour.

Eastport, Me., at low water under stones, rare; also on Indian Island, N. B.

*Edwardsia farinacea*, Verrill, sp. nov.

Body small, changeable in form, not very slender, often swollen in the middle or near the base, tapering upward; epidermis firm, dark yellowish, covered with small, firmly adherent grains of sand, the internal lamellæ showing through faintly, but becoming more distinct on the naked, transparent, protruded basal portion, which is marked by 12 corresponding whitish sulcations, meeting at the end and alternating with some finer lines. Upper part of column transparent and naked

for about  $\cdot 12$  inch. Tentacles 12, short, conical, in a single circle at the margin of the disk, not crowded, pale yellowish white, sprinkled with fine flake-white specks, which become more crowded on the inner median line and at the tips. Disk small, protruded; mouth largely dilatable, at times elevated on a cone; lips with 6 to 12 irregular lobes. Disk and naked space below the tentacles pale yellowish white, finely speckled with flake-white, the disk with faint whitish radiating lines. Length  $\cdot 5$  inch, greatest diameter  $\cdot 15$ ; diameter of disk  $\cdot 12$ .

South Bay, Lubec, on a muddy bottom in 8 fathoms, rare.

XIX.—*Descriptions of new Species of Butterflies from Tropical America.* By OSBERT SALVIN, M.A., F.L.S., &c.\*

1. *Olyras insignis.*

♂. Exp. 4.1 in. Antennæ yellow, black at the base; palpi black, with a lateral streak of white on each side; head black, with white spots round the eyes; prothorax black, with a yellow spot in the centre; thorax black tinged with yellow; wing-coverts black, with two white spots on each; abdomen dusky, black beneath, with an indistinct lateral line of white and white spots near the articulations beneath: anterior wings elongated, the anal angle much produced, diaphanous, yellow at the base, margins black; a black curved band crosses the cell to near the origin of the first median branch; the second median section is black, and meets a band which, crossing the wing through the end of the cell, passes along the second median branch to the outer margin; another indistinct band crosses the clear apical portion of the wing: posterior wings clear yellowish, outer margin broadly bordered with black, inside which, near the anal angle, is an edging of tawny red; nervures of both wings black: beneath just as above, except that there is a row of fourteen white spots arranged in pairs round the outer margin of the anterior wings, and eleven similarly placed round the margin of the posterior wings, and also one near the apical angle between the costal and subcostal nervures.

*Hab.* Calobre, Veragua (*Arcé*).

*Obs.* A true *Olyras*, but differing from both known members of the genus in having the intervals between the black markings of the wings either transparent or clouded with a semitransparent yellowish tinge.

2. *Ithomia frater.*

♂. Exp. 2.50 in. Wings diaphanous: head, body (except

\* All the specimens from which these descriptions are taken are in Mr. Godman's and my own collection.